BARBER COLMAN

SERIES 2000/3000

RECORDER-INDICATORS

REPLACEMENT PARTS

BARBER-COLMAN COMPANY
Industrial Instruments Division
Rockford, Illinois, U.S.A.

SERIES 2000/3000

RECORDER-INDICATORS

INTRODUCTION

This Replacement Parts List is effective starting with serial number 16J0026, although it is also valid for earlier models.

In most instances, part numbers that have changed since this serial number are interchangeable with those parts in prior models.

If assistance is needed in selecting an appropriate replacement part, consult your nearest Barber-Colman sales office.

BARBER-COLMAN COMPANY
Industrial Instruments Division

Litho in U.S.A.

F-9722-1 - August 1965

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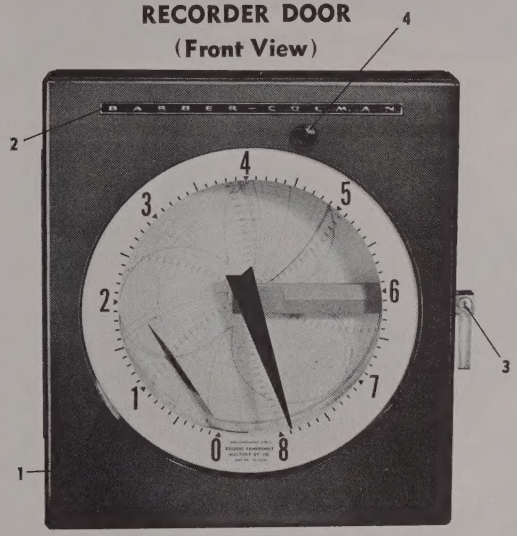
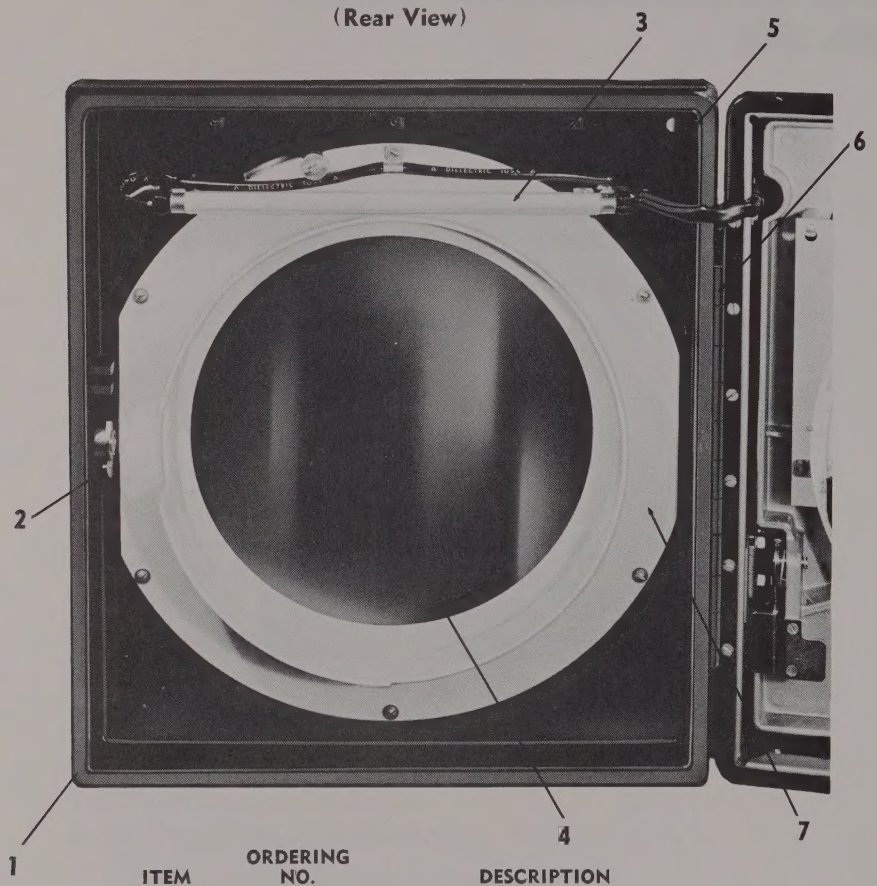
POTENTIOMETER RECORDERS/INDICATORS SERIES 2000/3000

2000 SERIES RECORDER DOOR (Front View)



ITEM	ORDERING NO.	DESCRIPTION
	6-111-100	Recorder Door
	A-3794	Complete Door Assembly (2000 Series)
	A-3794-100	Complete Door Assembly (3000 Series)
1		Complete Door Assembly Includes: 1. Recorder Door and Nameplate 2. Door Seal 3. Door Glass 4. Scale (specify range - calibration) 5. Locking Handle and Latch Assembly 6. External Set Point Shaft and Knob (if required) 7. Light Shield (2000 series only)
2	4-012-2	Nameplate
3	A-3366	Locking Handle Assembly
4	A-3922 (kit)	External Set Point Assembly
		External Set Point Assembly Includes:
	11-1527	Knob Clutch
	54-001	Lock Pin
	11-1528-1	Set Point Shaft
	KKW-282-3	Spring
	22-036	Door Knob

RECORDER DOOR
(Rear View)

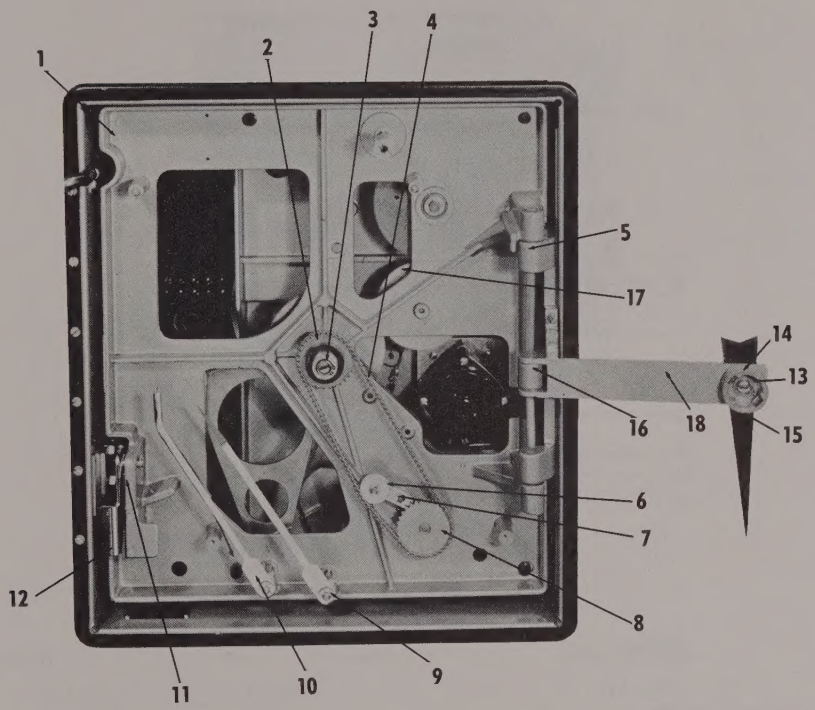


ITEM	ORDERING NO.	DESCRIPTION
1	R4-85-100	Door Seal
2	A-3365	Latch Assembly
3	36-023	Fluorescent Lamp
4	7-079	Door Glass
5	34-299	Lamp Holder
6	17-039 and 27-113	Door Hinge and Gasket
7	6-150	Light Shield (2000 Series)
	13-1309-100	Scale Retaining Clip (3000 Series)

Kit	A-4361	Fluorescent Lamp Assembly

POTENTIOMETER RECORDERS/INDICATORS SERIES 2000/3000

MAIN FRAME
(Front View)



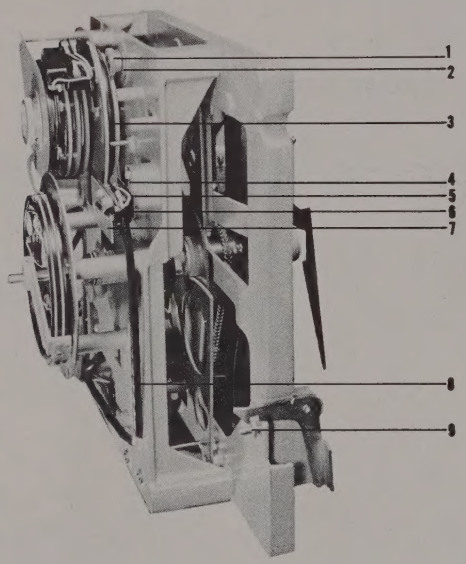
ITEM	ORDERING NO.	DESCRIPTION
1	3-151-100	Front Frame
*2	A-3828 (1/1 ratio)	31T Chart Hub Ass'y.
	A-4012 (1/3.5 ratio)	
*3	BYLC-170	Retaining Ring
*4	50-074	Ladder Chain
*5	3-136-101	Hinge Plate
*6	16-168	Chart Drive Roller
*7	A-3275	Idler Sprocket Arm Assembly
*8	A-3818 (1/1 ratio)	Chart Drive Sprocket Assembly
	A-4000 (1/3.5 ratio)	
9	A-3821	Chart Set Pointer Ass'y. (2000 Series)
	A-3992	Set Pointer and Hub Ass'y. (3000 Series)

ITEM	ORDERING NO.	DESCRIPTION
*10	A-3820	Pen and Pen Arm Assembly
	Pen and Pen Arm Ass'y consists of:	
	25-136	Pen and Pointer Spring
	3-153	Pen and Pointer Micro Adjust
	X-1817	"E" Ring
	11-1634	Pen and Pointer Shaft
11	25-117	Latch Spring
12	A-3229	Latch Assembly
*13	A-3822	Chart Hub Cap Ass'y.
*14	BYLC-398	Retaining Ring
15	3-156-100	Pointer (2000 Series)
	3-156-200	Pointer (3000 Series)
*16	11-1630	Pointer Bracket Hinge Pin
17	A-3834	144T Idler Gear and Hub Assembly
18	A-3823	Pointer Bracket Assembly
Not Shown	13-1201	Chart Plate

*Used on 2000 Series Recorders only

POTENTIOMETER RECORDERS/INDICATORS SERIES 2000/3000

MAIN FRAME
(Back View)



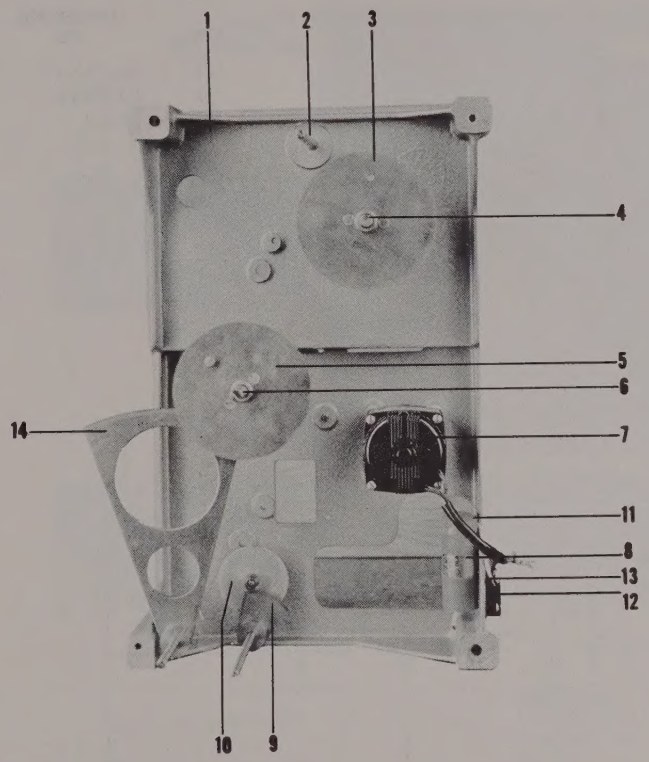
ITEM	ORDERING NO.	DESCRIPTION	ITEM	ORDERING NO.	DESCRIPTION
1	A-3833	Set Point Shaft Ass'y	6	A-3303-1	Limit Switch
2	16-159-100	Spring Washer	7	A-4903	#1 Switch Plate and Stud Assembly
3	A-3832	Switch Plate and Spindle Assembly	8	A-3975	Limit Switch Cable
4	13-1304	Auxiliary Switch Mounting Bracket	9	11-1469	Main Frame Guide Pin
5	10-051	Microswitch Insulator	*10	A-3840	Ink Reservoir and Tubing
			(Not Shown)	13-1200	Reservoir Mounting Bracket

LIMIT SWITCH KITS

DESCRIPTION	2000 Series	3000 Series
Limit Switch Kit (one switch for either high or low limit)	A-3925	A-3925
Limit Switch Kit (both switches)	A-3926	A-3926

*Used on 2000 Series Recorder only

MAIN FRAME
(Rear Section - Front View)

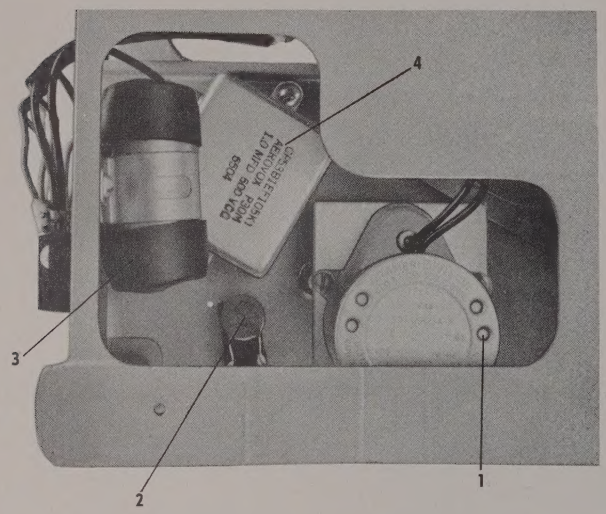


ITEM	ORDERING NO.	DESCRIPTION
1	3-150-100	Rear Frame
2	A-3833	Set Point Shaft Assembly
3	A-3830	Control Shaft Gear and Clamp Assembly
4	11-1631-1	Control Shaft
5	A-3829	Servo Control Gear and Pinion
6	11-1643	Servo Shaft (2000 Series)
	11-1683	Servo Shaft (3000 Series)
7	A-4332-1	Servo Motor — Bodine (also used as replacement for Holtzer-Cabot motors)
8	39-044	Capacitor (order new capacitor for use with replacement motor)
*9	A-3827	20T Sector Gear and Hub Assembly
*10	A-3831	Pulley, Gear and Hub Assembly
11	6-095	Plastic Cap
12	BYZP-158	Terminal Strip
13	10-429	Marker Strip
*14	A-3826	76T Sector Gear and Hub Assembly

(not shown)

*Used on 2000 Series Recorder only

MAIN FRAME
(Rear Section - Back View)



ITEM	ORDERING NO.	DESCRIPTION
1	See Table I	Chart Motor
2	CYZR-220	.01 mfd Ceramic Capacitor
3	39-044	Capacitor
4	A-4126	1 mfd Capacitor Assembly

TABLE I
‡CHART SPEED CHANGE MOTORS

Order Number of Motor	Motor Speed (per revolution)	Chart Speed (per revolution)
35-186	5 min.	* 5 min.
35-187	15 min.	*15 min.
35-188	30 min.	*30 min.
35-189	1 hour	* 1 hour
35-190	8 hours	* 8 hours
35-191	1 day	* 1 day
35-192	2 days	** 1 week

‡NOTE

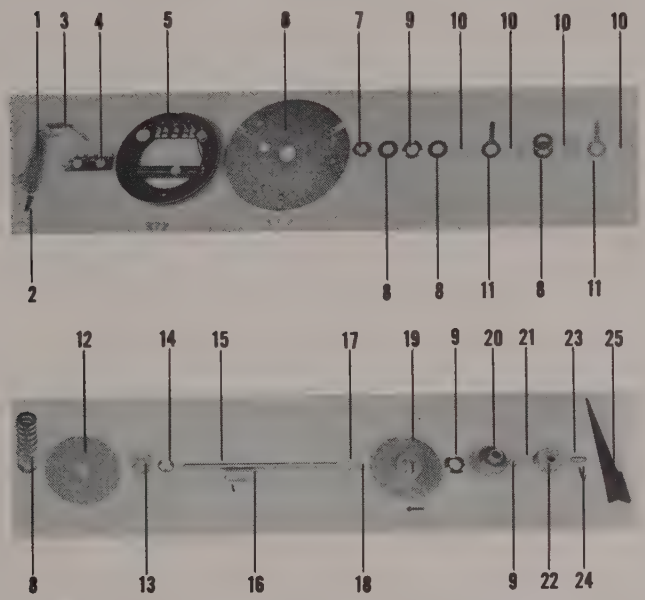
Standard chart speeds are 24 hour and 7 days. If desired, the speed may be changed one to the other by changing the chart drive motor and sprockets (see Table II). Changing from 24 hour speed to any of the special speeds listed above requires changing the motor only.

TABLE II
DRIVE MOTOR SPROCKETS

	*1/1 Ratio	**1/3.5 Ratio (7 day chart speed only)
Driver Sprocket and Shaft Assembly	A-3818	A-4000
Driver Sprocket and Hub Assembly	A-3828	A-4012

POTENTIOMETER RECORDERS/INDICATORS
SERIES 2000/3000

MAIN SHAFT ASSEMBLY
INCLUDING LIMIT SWITCH CAMS



ITEM	ORDERING NO.	DESCRIPTION
1	3-147	Contact Arm (2000 Series)
	3-147-1	Contact Arm (3000 Series)
2	BYRF-137	Socket Head Cap Screw
3	A-3312	Slidewire Contact Assembly
4	A-3225	Spool Plate Assembly (specify range and actuation)
	A-3224	Standard Slidewire Assembly (20 ohms)
	Some Additional Slidewires:	
	A-3572-100	.001 to 1 mv (50/1 voltage divider)
	A-3572-200	1.001 to 3 mv (25/1 voltage divider)
5†	A-3778-1	200 ohm Slidewire for 100 ohm Resistance Bulb
	A-3778-101	800 ohm Slidewire for 1000 ohm Resistance Bulb
	†When ordering, specify instrument serial number and model number plus present and desired range.	
6	A-3226	Slidewire Plate Assembly
7	14-060	5/8 x 18 Hex Jam Nut
8	16-154	Keyed Spacer Washer
9	16-156	Spring Washer
10	50-102	Cork Clutch Disc
11	13-1663	Auxiliary Switch Cam

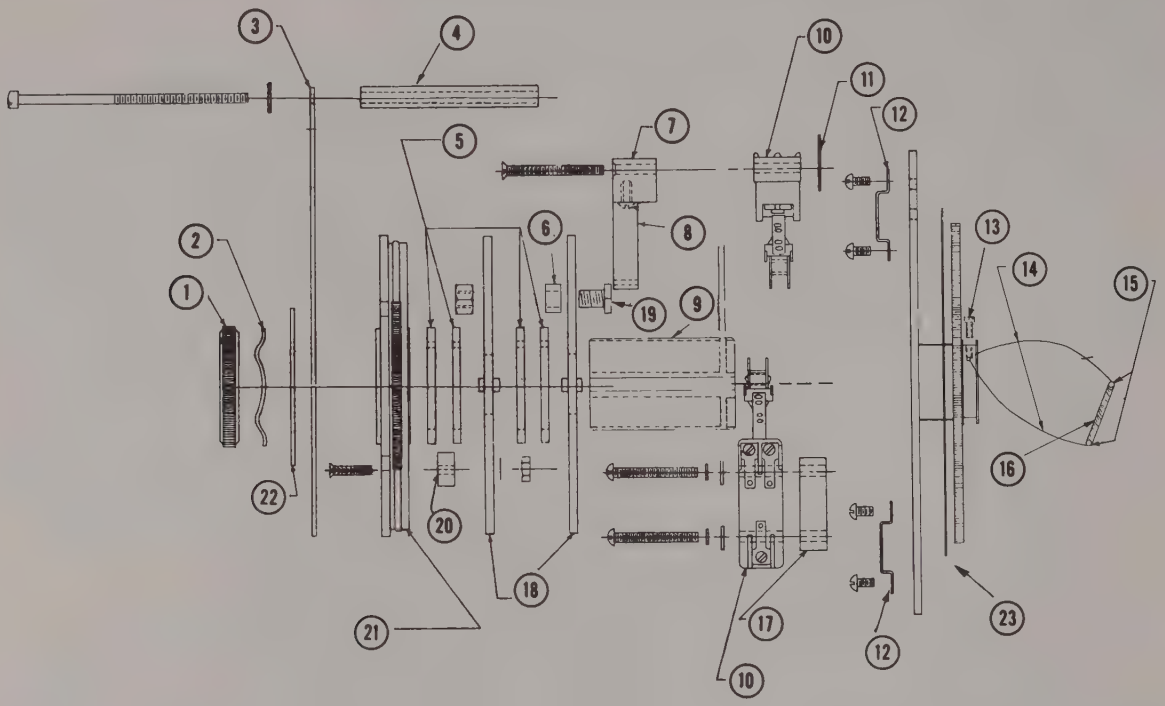
ITEM	ORDERING NO.	DESCRIPTION
12	28-170	210T Servo Gear
13	16-155	Keyed Backing Washer (2)
14	54-056	"E" Ring
15	11-1643	Servo Shaft (2000 Series)
	11-1683	Servo Shaft (3000 Series)
16	11-1633	Servo Actuation Hub
17	CYRD-254	Spacer
18	BYLC-398	Retaining Ring
19	A-3829	Servo Control Gear and Pinion (2000 Series)
	A-5033	Servo Control Gear and Pinion (3000 Series)
*20	A-3828	Gear and Platten—31T—24 hour
	A-4012	Gear and Platten—49T—7 day
21	BYLC-398	Retaining Ring
22	A-3892	Chart Hub Cap Assortment (2000 Series)
	A-3992	Set Pointer and Hub Assembly (3000 Series)
*23	11-1642	Pointer Stub Shaft
24	59-028	Roll Pin
25	3-156-100	Pointer (2000 Series)
	3-156-200	Pointer (3000 Series)

CONTROL SWITCH KITS

Description	2000 Series	3000 Series
Control Switch Kit for 1 switch	A-3854	
Control Switch Kit for 2 switches	A-3895	A-3895-100
Control Switch Kit for 3 switches	A-3896	A-3896-100
Control Switch Kit for 4 switches	A-3897	A-3897-100

* Used on 2000 Series Recorders only.

CONTROL SWITCH AND CONTROL SLIDEWIRE ASSEMBLY



ITEM	ORDERING NO.	DESCRIPTION
1	14-066	Cam Nut
2	16-141	Spring Washer
3	10-445	Cable Shield
4	11-1677	Spacer (for 2 switches)
	11-1676	Spacer (for 3 switches)
5	13-977	Spacers (4)
6	SHL-435	Spacer
7	6-101	Contact Spring Block
8	A-3527	Contact Spring
9	6-151	Control Cam Hub
10	A-3303-1	Control Switch
11	10-051	Insulators (2)
12	13-976	Cable Clamp

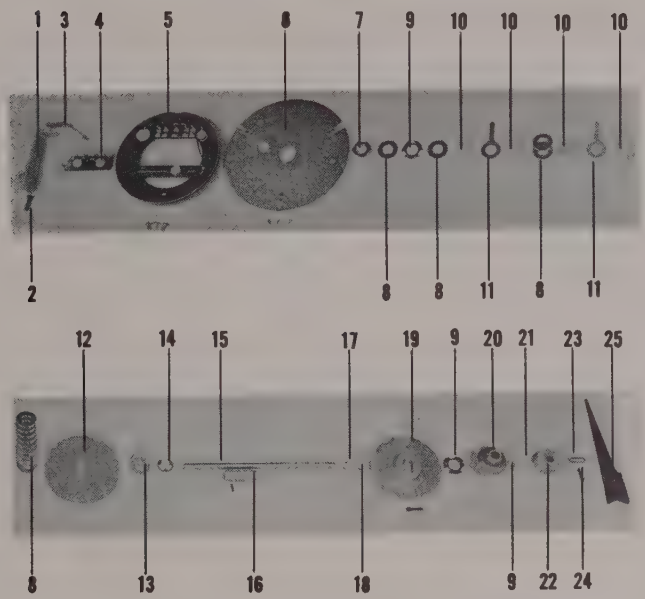
ITEM	ORDERING NO.	DESCRIPTION
13	BYRF-936	Bristol Screw
14	R10-64	28¼" Cable
15	FYRE-33	Clip
16	WKB-213-1	Spring
17	6-084	Switch Spacer
18	6-161	Switch Disc (2)
19	15-091	Hex Hd. Mach. Screw
20	SHL-435	Spacer
21	A-3508	Control Slidewire Assembly (20%)
22	13-924	Keyed Washer
23	A-3832	Cable and Switch Plate Spindle Assembly

CONTROL SLIDEWIRE KITS (20%)

Description	2000 Series	3000 Series
Control Slidewire Kit	A-3923	A-3923-100
Control Slidewire Kit with one extra switch	A-4039	A-4039-100

POTENTIOMETER RECORDERS/INDICATORS
SERIES 2000/3000

MAIN SHAFT ASSEMBLY
INCLUDING LIMIT SWITCH CAMS



ITEM	ORDERING NO.	DESCRIPTION
1	3-147	Contact Arm (2000 Series)
	3-147-1	Contact Arm (3000 Series)
2	BYRF-137	Socket Head Cap Screw
3	A-3312	Slidewire Contact Assembly
4	A-3225	Spool Plate Assembly (specify range and actuation)
	A-3224	Standard Slidewire Assembly (20 ohms)
	Some Additional Slidewires:	
	A-3572-100	.001 to 1 mv (50/1 voltage divider)
	A-3572-200	1.001 to 3 mv (25/1 voltage divider)
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6	A-3226	Slidewire Plate Assembly
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22	A-3892	Chart Hub Cap Assortment (2000 Series)
	A-3992	Set Pointer and Hub Assembly (3000 Series)
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24	59-028	Roll Pin
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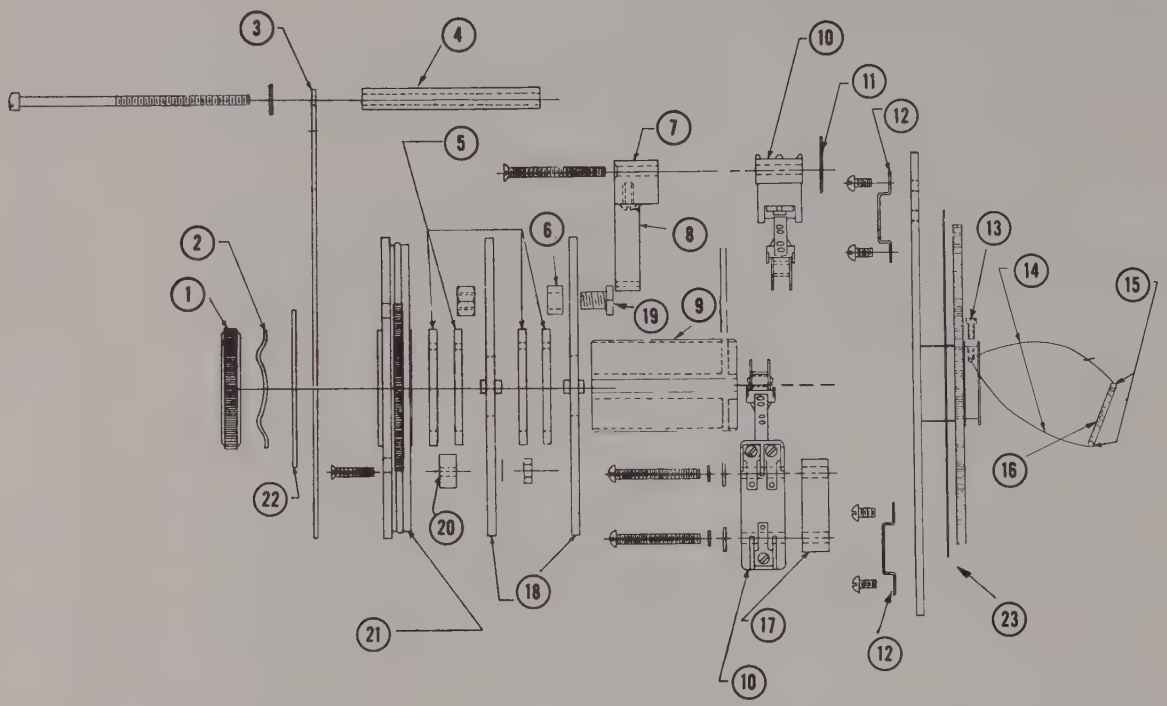
	3-156-200	Pointer (3000 Series)

CONTROL SWITCH KITS

Description	2000 Series	3000 Series
Control Switch Kit for 1 switch	A-3854	
Control Switch Kit for 2 switches	A-3895	A-3895-100
Control Switch Kit for 3 switches	A-3896	A-3896-100
Control Switch Kit for 4 switches	A-3897	A-3897-100

* Used on 2000 Series Recorders only.

CONTROL SWITCH AND CONTROL SLIDEWIRE ASSEMBLY



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	11-1676	Spacer (for 3 switches)
5	13-977	Spacers (4)
6	SHL-435	Spacer
7	6-101	Contact Spring Block
8	A-3527	Contact Spring
9	6-151	Control Cam Hub
10	A-3303-1	Control Switch
11	10-051	Insulators (2)
12	13-976	Cable Clamp

ITEM	ORDERING NO.	DESCRIPTION
13	BYRF-936	Bristol Screw
14	R10-64	28¼" Cable
15	FYRE-33	Clip
16	WKB-213-1	Spring
17	6-084	Switch Spacer
18	6-161	Switch Disc (2)
19	15-091	Hex Hd. Mach. Screw
20	SHL-435	Spacer
21	A-3508	Control Slidewire Assembly (20%)
22	13-924	Keyed Washer
23	A-3832	Cable and Switch Plate Spindle Assembly

CONTROL SLIDEWIRE KITS (20%)

Description	2000 Series	3000 Series
Control Slidewire Kit	A-3923	A-3923-100
Control Slidewire Kit with one extra switch	A-4039	A-4039-100

POTENTIOMETER RECORDERS/INDICATORS SERIES 2000-3000, 8000-9000

CONSTANT VOLTAGE SOURCE

ITEM	ORDERING NUMBER	DESCRIPTION
1	See Table 1	Constant Voltage Source (CVS) Unit Assembly
2	See Table 2	Cold Junction Card Assembly
3	A-4615	Cold Junction Main Plate Assembly
Not Shown	40-062	Resistor 2.2 K 1/2 w (on front side of Item 3)
Not Shown	39-077	Capacitor 2 mfd 200 v d-c w (on back side of Item 3)

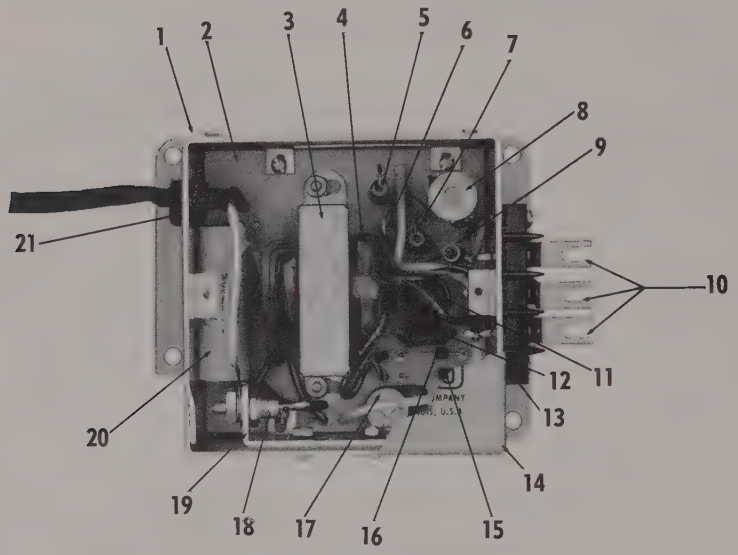
TABLE 1

CVS UNIT ASSEMBLIES	
A-4628	60 cycle
A-4628-100	60 cycle Used on 2400/3400/8400/9400
A-4915	50 cycle

TABLE 2

COLD JUNCTION CARD ASSEMBLIES			
Assembly Number	Input	Assembly Number	Input
A-4616	E (Chromel-Constantan)	A-4621	Millivolt 2 ohm
A-4617	J (Iron/Constantan)	A-4622	Millivolt 4 ohm
A-4618	T (Copper/Constantan)	A-4623	Millivolt 5 ohm
A-4619	K (Chromel/Alumel)	A-4624	Millivolt 25 ohm
A-4620	S (Platinum/10% Rhodium-Platinum)	A-4625	Millivolt 50 ohm
A-4620	R (Platinum/13% Rhodium-Platinum)	A-4626	Millivolt 11.06 ohm at 100°F

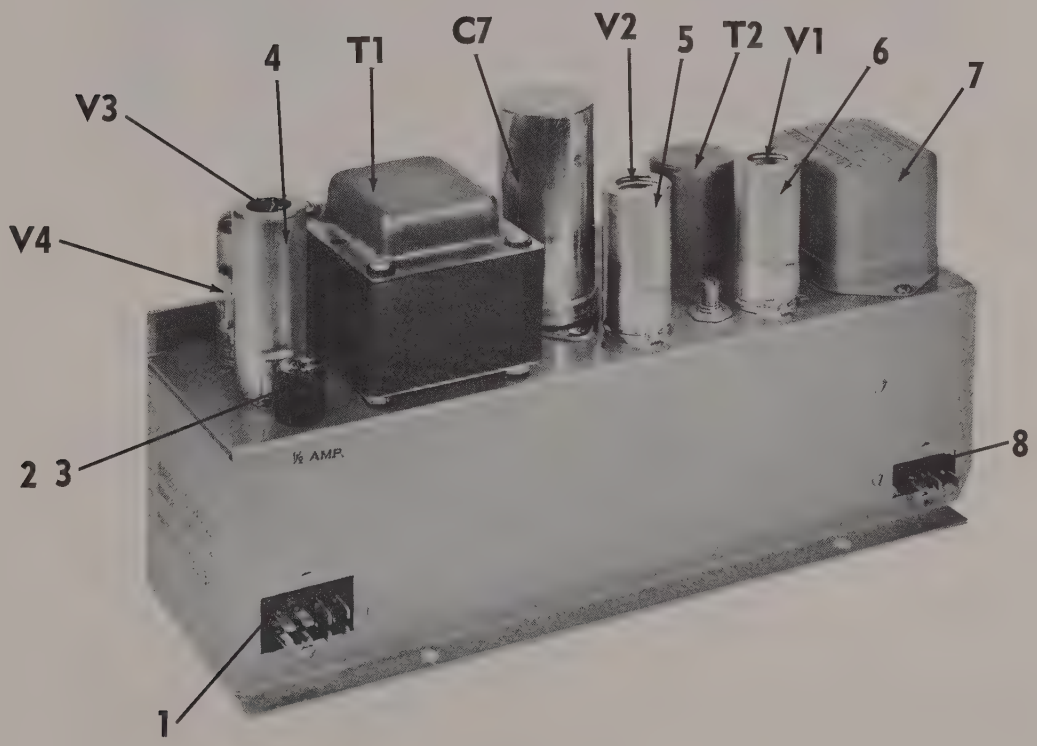
CONSTANT VOLTAGE SOURCE
CHASSIS AND CIRCUIT BOARD ASSEMBLY



ITEM	ORDERING NO.	DESCRIPTION
1	A-4612-1	CVS Chassis Assembly
2	A-4613 (60 cycle)	CVS Printed Circuit Board Assembly
	A-4914 (50 cycle)	
	A-4613-100 (special)	
3	30-106-101	Transformer (T1)
4	40-160	Resistor, 550Ω, 2.5 watt, ± 1% ww (R2)
(not shown)		
5	40-162	Resistor, 10 k, 3 watt, ± 1% ww (R3)
6	40-180	Resistor, 1 k, 3 watt, ± 3% ww (R5)
7	40-161	Resistor, 232 Ω, 2.5 watt, ± 1% ww (R4)
8	A-4409	Calibration Spool 150 Ω (R6)
9	31-027	Diode, IN2163 (D4)
10	13-1536	CVS Terminal Connectors (3)
11	39-163	Capacitor, 100 mfd, 50 vdc, elect. (C3)
12	40-159	Resistor, 366 Ω, 2.5 watt, ± 1% ww (R1)
13	34-252	3 Lug Barrier Strip
14	13-1537	CVS Top Cover
15 and 16	37-066	Diode, IN1095 (D2 and D3)
17	39-175	Variable Capacitor, 5-25 mmfd (C2)
18	31-036	Zener Diode, 10M30ZZ10 (D1)
19	13-1528-1	Diode Heat Sink
20	39-164-1 (60 cycle)	Capacitor, 2 mfd, 400 vdc, ± 10% (C1)
	39-177 (50 cycle)	Capacitor, 2.6 mfd, 400 vdc, ± 10% (C1)
21	FYRE-27	Strain Relief, SR-5P

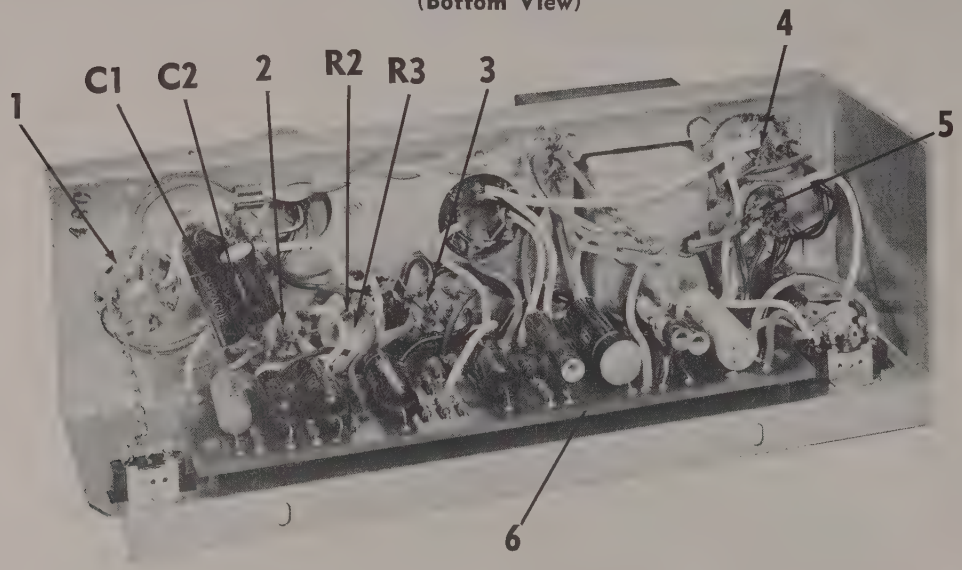
POTENTIOMETER RECORDERS/INDICATORS SERIES 2000-3000, 8000-9000

STANDARD AMPLIFIER
(Front View)



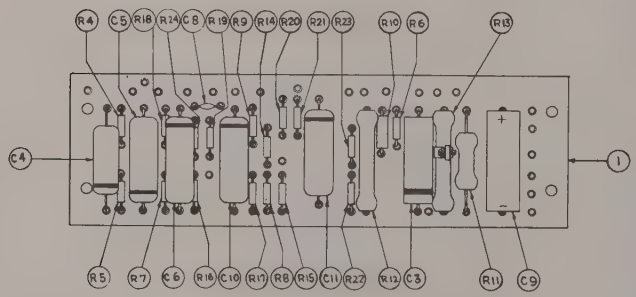
ITEM	ORDERING NO.	DESCRIPTION
As Shown	A-3373-1	Standard Amplifier Assembly—does not include chopper (Microverter)
1	34-302	8 Contact Socket
2	SYZE-207	Fuse Holder
3	50-080	Fuse ½ amp
4	10-419	Shield
5	EYZP-104	Shield
6	EYZP-104	Shield
7	A-3375	Chopper (Microverter)
8	34-303	3 Contact Socket
C7	39-091	Capacitor 20-20-20-20 mfd
T1	30-074-1	Recorder Amplifier Transformer
T2	30-071	Chopper Transformer
VI	EYZP-70-10	Tube 12AX7
V2	EYZP-70-10	Tube 12AX7
V3	31-015	Tube 5763
V4	31-017	Tube 6X4

STANDARD AMPLIFIER
(Bottom View)



ITEM	ORDERING NO.	DESCRIPTION
As Shown	A-3373-1	Standard Amplifier
1	34-162-2	8 Pin Tube Socket
2	EYZP-103	9 Pin Tube (V1) Socket
3	EYZP-103	9 Pin Tube (V2) Socket
4	34-321	7 Pin Tube (V4) Socket
5	EYZP-103	9 Pin Tube (V3) Socket
6	A-4706	Printed Circuit Board and Wiring Assembly
C1	39-041-2	Capacitor .05 mfd
C2	39-092	Capacitor 100 mfd
R1 Not Shown	CYZR-170-3	Resistor 4.7 K ½ w (underneath C1 and C2)
R2	CYZR-170-43	Resistor 220 K ½ w
R3	29-066	Potentiometer (gain control)

AMPLIFIER PRINTED CIRCUIT BOARD COMPONENT ASSEMBLY



ITEM	ORDERING NO.	DESCRIPTION
As Shown	* A-3372-1	Amplifier Printed Circuit Board Component Assembly

* Order A-4706 Printed Circuit Board and Wiring Assembly, Item 6 in amplifier bottom view illustration.

CAPACITORS

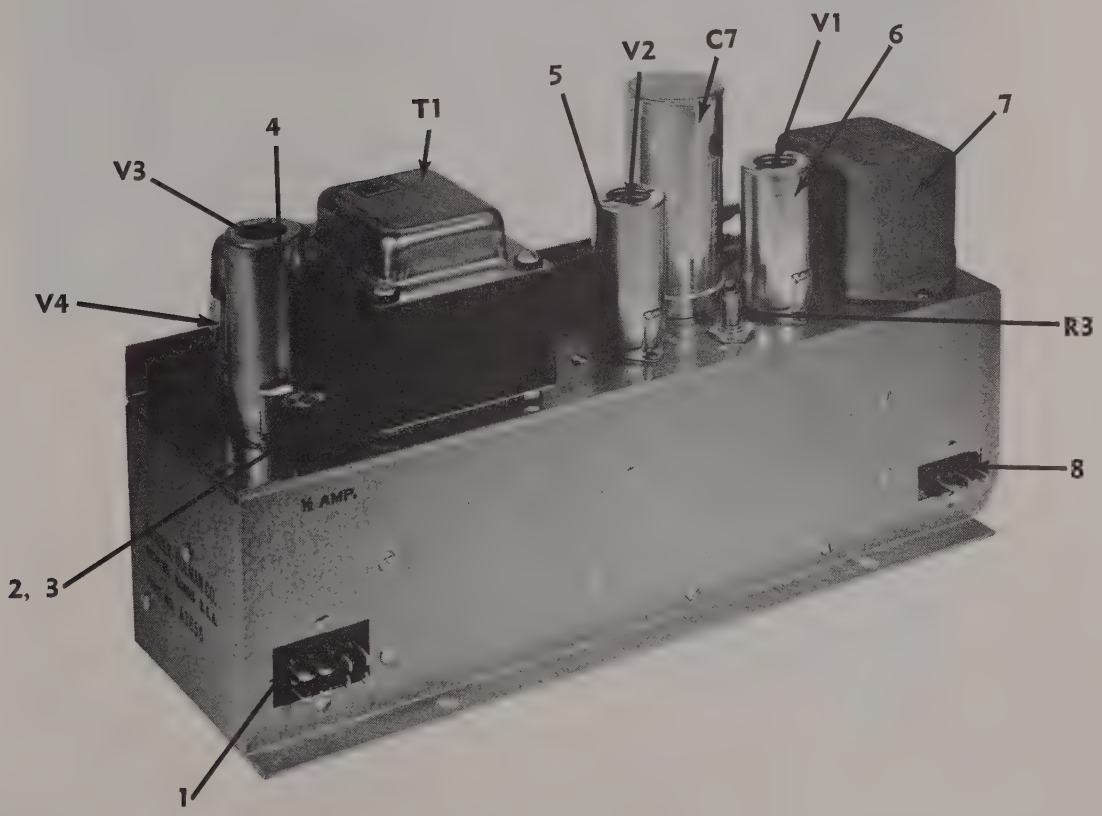
C3	39-077	2.0 mfd 200 v d-c w
C4	39-050-1	.015 mfd 600 v d-c w
C5	39-025-2	.02 mfd 600 v d-c w
C6	39-041-2	.05 mfd 600 v d-c w
C8	39-076	250 mmfd 500 v d-c w
C9	39-181	50 mfd 50 v d-c w
C10	39-041-2	.05 mfd 600 v d-c w
C11	39-041-2	.05 mfd 600 v d-c w

RESISTORS

R4	CYZR-170-13	470 K ½ w
R5	CYZR-170-37	150 K ½ w
R6	CYZR-170-41	1.0 meg ½ w
R7	40-019-1	100 K ½ w
R8	CYZR-170-5	12 K ½ w
R9	CYZR-170-17	2.7 meg ½ w
R10	CYZR-171-3	100 K 1 w
R11	40-100	750 ohm 5 w
R12	40-093	15 K 10 w
R13	CYZR-15	150 ohm 10 w
R14	CYZR-170-6	18 K ½ w
R15	CYZR-170-22	1 K ½ w
R16	CYZR-170-41	1.0 meg ½ w
R17	CYZR-170-41	1.0 meg ½ w
R18	CYZR-170-13	470 K ½ w
R19	CYZR-170-13	470 K ½ w
R20	CYZR-170-13	470 K ½ w
R21	CYZR-170-13	470 K ½ w
R22	CYZR-170-13	470 K ½ w
R23	40-019-1	100 K ½ w
R24	CYZR-170-43	220 K ½ w

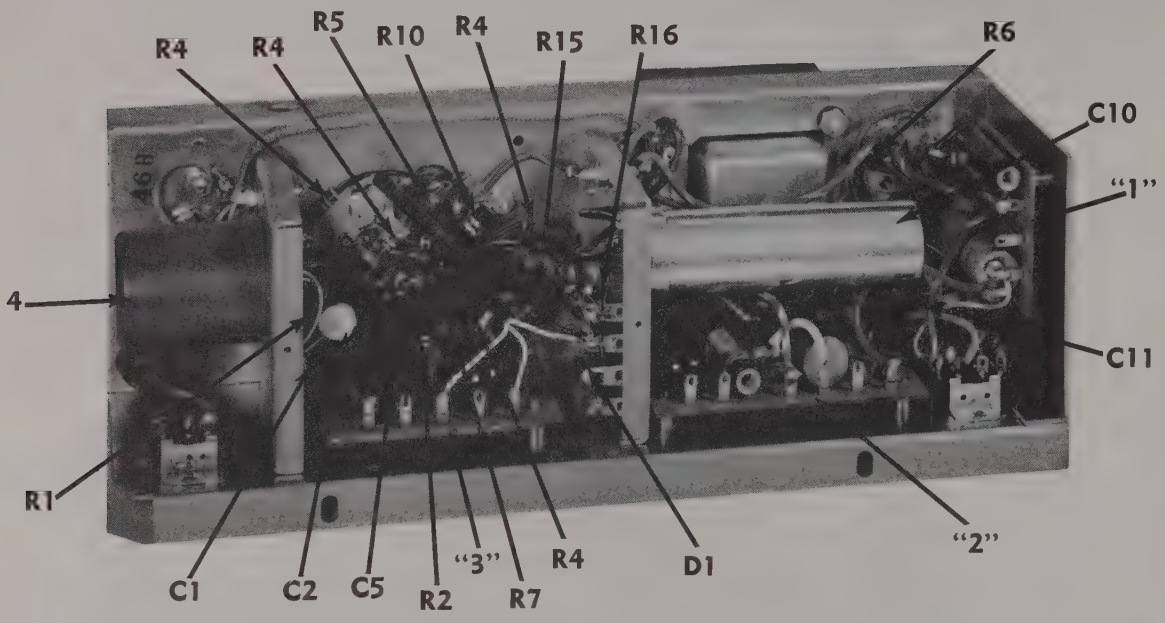
POTENTIOMETER RECORDERS/INDICATORS SERIES 2000-3000, 8000-9000

SHIELDED AMPLIFIER
(Front View)



ITEM	ORDERING NO.	DESCRIPTION
As Shown	A-3856	Shielded Amplifier Assembly—does not include chopper (Microverter)
1	34-302	8 Contact Socket
2	SYZE-207	Fuse Holder
3	50-080	Fuse ½ amp
4	10-419	Shield
5	EYZP-104	Shield
6	EYZP-104	Shield
7	A-3375	Chopper (Microverter)
8	34-303	3 Contact Socket
C7	39-091	Capacitor 20-20-20-20 mfd
T1	30-074-1	Recorder Amplifier Transformer
V1	EYZP-70-10	Tube 12AX7
V2	EYZP-70-10	Tube 12AX7
V3	31-015	Tube 5763
V4	31-017	Tube 6X4
R3	29-066	Potentiometer (gain control)

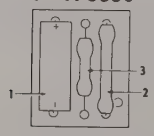
SHIELDED AMPLIFIER
(Bottom View)



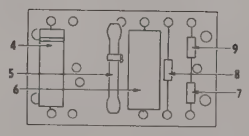
ITEM	ORDERING NO.	DESCRIPTION
As Shown	A-3856	Shielded Amplifier Assembly
"1", "2", "3"	See Below	Terminal Board Assembly
4	30-071	Chopper Input Transformer
R1	CYZR-170-3	Resistor 4.7 k ½ w
R2	CYZR-170-43	Resistor 220 k ½ w
R4	CYZR-170-13	Resistor 470 k ½ w
R5	CYZR-170-37	Resistor 150 k ½ w
R6	CYZR-170-41	Resistor 1.0 meg ½ w
R7	40-019-1	Resistor 100 k ½ w
R10	CYZR-171-3	Resistor 100 k 1 w
R15	CYZR-170-22	Resistor 1 k ½ w
R16	CYZR-171-21	Resistor 2.7 ohm 1 w
C1	CYZR-173-3	Capacitor .05 mfd
C2	39-092	Capacitor 100 mfd
C5	39-025-2	Capacitor .02 mfd
C10	39-130	Capacitor 1000 + 1000 mfd
C11	39-172	Capacitor .005 mfd
D1	37-066	Diode
Not Shown	13-1210	Shield Cover

TERMINAL BOARD ASSEMBLIES

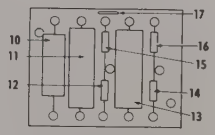
"1" A-3850



"2" A-3852



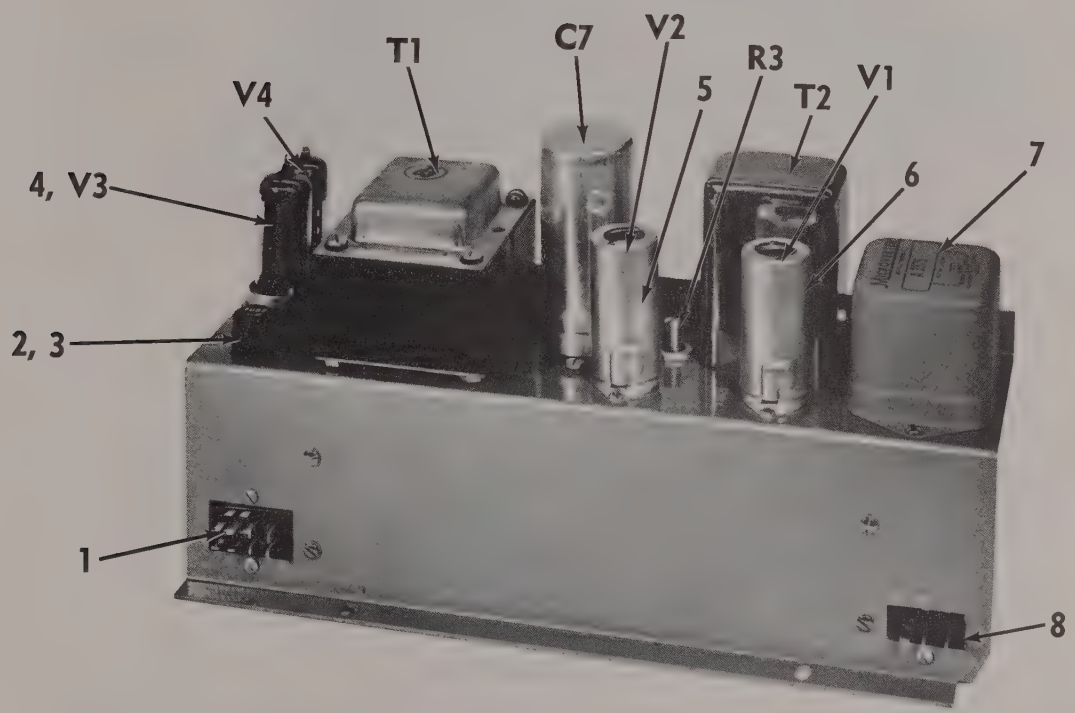
"3" A-3851



ITEM	ORDERING NO.	DESCRIPTION
1	CYZR-156	Capacitor 50 mfd
2	40-093	Resistor 15 k 10 w
3	40-100	Resistor 750 ohm 5 w
4	39-041-2	Capacitor .05 mfd
5	CYZR-15	Resistor 150 ohm 10 w
6	39-077	Capacitor 2.0 mfd
7, 8	CYZR-170-13	Resistor 470 k ½ w
9	40-019-1	Resistor 100 k ½ w
10	39-050-1	Capacitor .015 mfd
11, 13	39-041-2	Capacitor .05 mfd
12, 14	CYZR-170-41	Resistor 1.0 meg ½ w
15	CYZR-170-43	Resistor 220 k ½ w
16	CYZR-170-17	Resistor 2.7 meg ½ w
17	39-076	Capacitor 250 mfd

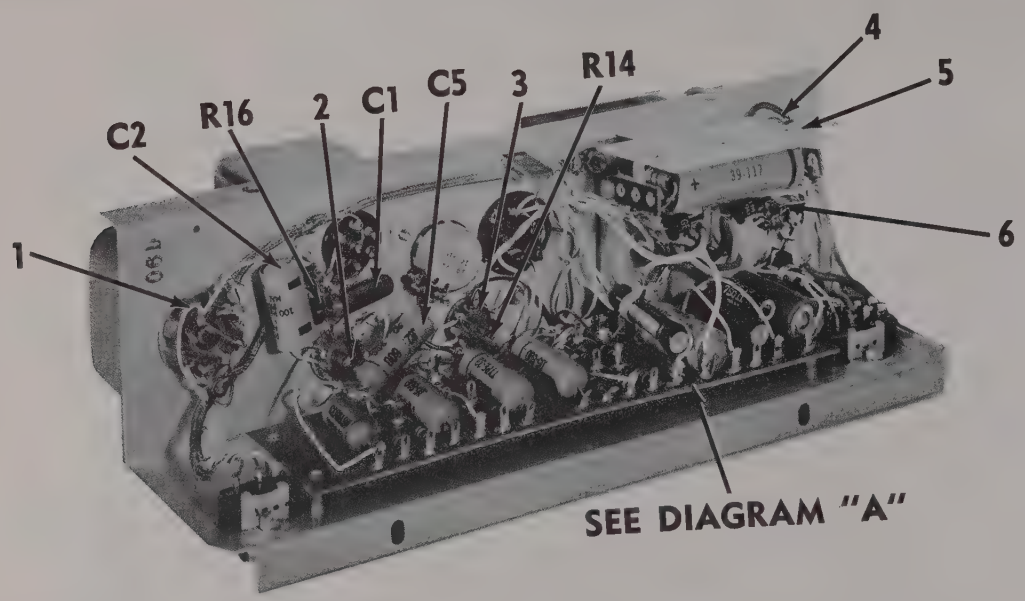
POTENTIOMETER RECORDERS/INDICATORS SERIES 2000-3000, 8000-9000

HI-IMPEDANCE AMPLIFIER
(Front View)



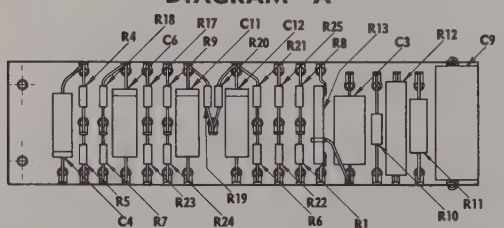
ITEM	ORDERING NO.	DESCRIPTION	ITEM	ORDERING NO.	DESCRIPTION
As Shown	A-3937	Hi-Impedance Amplifier Assembly—does not include chopper (Microverter)	8	34-303	3 Contact Socket
			C7	39-091	Capacitor 20-20-20-20 mfd
1	34-302	8 Contact Socket	T1	30-074-1	Recorder Amplifier Transformer
2	SYZE-207	Fuse Holder	T2	30-095	Chopper Transformer
3	50-080	Fuse ½ amp	V1	EYZP-70-10	Tube 12AX7
4	10-419	Shield (not shown—for tube V3)	V2	EYZP-70-10	Tube 12AX7
5	EYZP-104	Shield	V3	31-015	Tube 5763
6	EYZP-104	Shield	V4	31-017	Tube 6X4
7	A-3375	Chopper (Microverter)	R3	29-066	Potentiometer (gain control)

HI-IMPEDANCE AMPLIFIER
(Bottom View)



ITEM	ORDERING NO.	DESCRIPTION
As Shown	A-3937-1	Hi-Impedance Amplifier
1	34-162-2	8 Pin Tube Socket
2	EYZP-103	9 Pin Tube (V1) Socket
3	EYZP-103	9 Pin Tube (V2) Socket
4	34-321	7 Pin Tube (V4) Socket
5	A-3930	Heater and Rectifier Mounting Assembly (see components, below)
6	EYZP-103	9 Pin Tube (V3) Socket
C1	39-074	Capacitor .001 mfd
C2	39-092	Capacitor 100 mfd
C5	39-025-2	Capacitor .02 mfd
R14	CYZR-170-22	Resistor 1 k ½ w
R16	CYZR-170-3	Resistor 4.7 k ½ w

DIAGRAM "A"



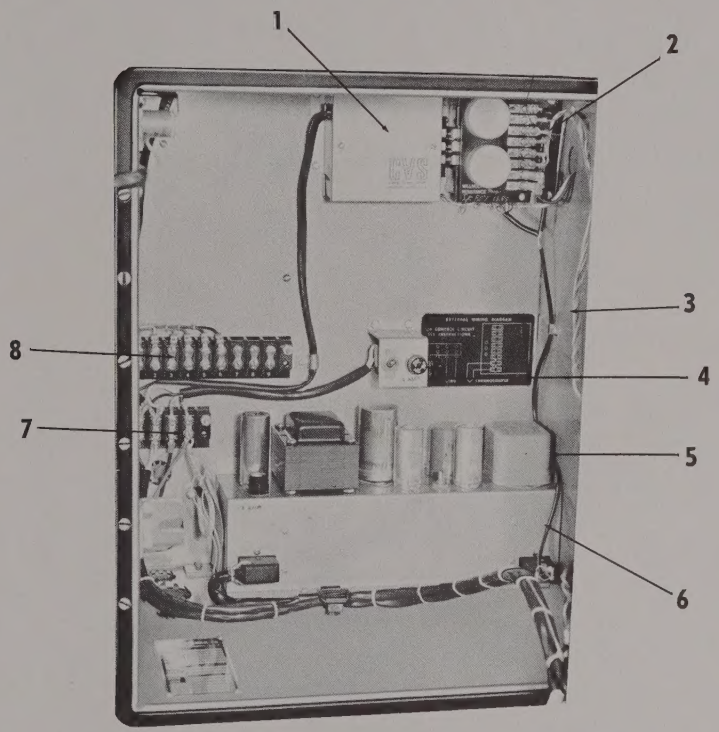
ITEM	ORDERING NO.	DESCRIPTION
	Capacitors	
C3	39-077	2.0 mfd 200 v d-c w
C4	39-050-1	.015 mfd 600 v d-c w
C6	39-041-2	.05 mfd 600 v d-c w
C9	CYZR-156	50 mfd 50 v d-c w
C11, C12	39-041-2	.05 mfd 600 v d-c w
	Resistors	
R1	CYZR-170-6	18 k ½ w
R4	CYZR-170-13	470 k ½ w
R5	CYZR-170-37	150 k ½ w
R6	CYZR-170-41	1.0 meg ½ w
R7	40-019-1	100 k ½ w
R8	CYZR-170-5	12 k ½ w
R9	CYZR-170-17	2.7 meg ½ w
R10	CYZR-171-3	100 k 1 w
R11	40-100	750 ohm 5 w
R12	40-093	15 k 10 w
R13	CYZR-15	150 ohm 10 w
R17	CYZR-170-43	220 k ½ w
R18, R19, R20, R21, R22	CYZR-170-13	470 k ½ w
R23, R24	CYZR-170-41	1.0 meg ½ w
R25	40-019-1	100 k ½ w

Components of A-3930, Item 5, Illustration Above

(1)	CYZR-171-21	Resistor 2.7 ohm 1 w
(2)	39-117	Capacitors 500 mfd 15 v d-c w
(4)	37-066	Diodes

POTENTIOMETER RECORDERS/INDICATORS SERIES 2000/3000

RECORDER CASE



ITEM	ORDERING NO.	DESCRIPTION
‡1	A-4628	CVS Unit Assembly
2	A-4615	Cold Junction Main Plate Assembly
3	A-4813	Amplifier Cable
4	A-3789	Switch and Fuse Holder Assembly
5	A-3375	Chopper Assembly
6	A-3373-1	Amplifier Assembly (standard)
	A-3856	Shielded Amplifier
	A-3937-1	Hi-Impedance Amplifier
7	34-030	4-Lug Terminal Strip
	10-461	Terminal Strip Cover (not shown)
8	34-300	9-Lug Terminal Strip
	10-468	Terminal Strip Cover (not shown)

‡NOTE: Reference Section VI, Page 1, for additional CVS units.

F-12595

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